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**FILED**

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**SECRETARY, BOARD OF  
OIL, GAS & MINING**

*Attorneys for Red Leaf Resources, Inc.*

**BEFORE THE BOARD OF OIL, GAS AND MINING  
 DEPARTMENT OF NATURAL RESOURCES  
 STATE OF UTAH**

LIVING RIVERS,  
 Petitioner,

vs.

UTAH DIVISION OF OIL, GAS & MINING,  
 Respondent,

RED LEAF RESOURCES, INC.,  
 Intervenor-Respondent.

**RED LEAF RESOURCES, INC.'S  
 MEMORANDUM IN SUPPORT  
 OF MOTION IN LIMINE**

Docket No. 2012-017

Cause No. M/047/0103

Intervenor-Respondent Red Leaf Resources, Inc. ("RLR" or "Red Leaf"), permittee of the Southwest #1 Mine, LM/04710103, through its attorneys, and pursuant to Utah Administrative Code R641-108-200 and Utah Code § 63G-4-206(1)(b), hereby moves *in limine* for an Order prohibiting Petitioner Living Rivers' purported expert James R. Kuipers from offering testimony on the following topics identified in his expert report dated May 25, 2012:

1. Any opinion regarding purported "significant risk of both technical and economic failure" of Red Leaf's EcoShale™ In-Capsule technology. Red Leaf asserts that Mr. Kuipers is not qualified by either education or experience to offer such an

opinion. As a separate basis for its Motion, Red Leaf asserts that Mr. Kuipers' opinions on this topic lack a reliable and relevant basis, and are based on speculation.

2. Any opinion regarding the purported "high likelihood of project failure and proponent bankruptcy." Such an opinion is irrelevant to any issue raised in Petitioners' Request for Agency Action. As a separate basis for its motion, Red Leaf asserts that Mr. Kuipers' opinions on this topic are without a reliable and relevant basis.
3. Any opinion regarding the adequacy of the reclamation bond ("financial assurance") required by the Division. The adequacy of the bond was not among the issues raised in the Request for Agency Action. As a separate basis, Mr. Kuipers does not have a reliable basis for his opinions regarding reclamation costs.
4. Any opinions having their basis in the 2012 Oil Shale and Tar Sands Draft Programmatic Environmental Impact Statement, prepared by the Bureau of Land Management and offered for public review and comment on January 27, 2012 (the "Draft PEIS"). The Draft PEIS does not provide a reliable and relevant basis for opinions regarding Red Leaf, the Southwest #1 Mine, or the EcoShale In-Capsule Technology.

The following sections explain, first, that the Board should not admit opinion testimony without a reliable basis that is relevant to the subject matter of the opinion; and second, that expert opinions, even if supported by a proper basis, should be excluded if they are not relevant to matters set forth in any pleading. Following that legal discussion, this memo will explain how the matters of expert opinion enumerated above fall short of these legal standards and therefore do not merit admission into evidence.

### **STANDARD FOR ADMISSIBILITY OF EXPERT TESTIMONY**

The Board should look to its own rules and the Utah Rules of Evidence as its guide for determining whether the opinion testimony of expert witnesses should be admitted into evidence. There is no question that the Board is empowered to rule on admissibility of evidence, and to exercise its discretion to exclude evidence if it chooses. Utah Admin. Code R641-108-200, 201; Utah Code § 63G-4-206(1)(b). In making these determinations, the Board is required to look to the Utah Rules of Evidence. Utah Admin. Code R641-108-200 (“The Board shall use as appropriate guides the Utah Rules of Evidence insofar as the same may be applicable and not inconsistent with [the Board’s] rules.” (emphasis supplied)). This statement from the Board’s Rules of Practice and Procedure indicates that while the Board has some flexibility in application of the rules of evidence, its evidentiary decisions must be guided by them, and it would act beyond the limits of its discretion to admit evidence that would be barred under the Utah Rules.<sup>1</sup>

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<sup>1</sup>The sole exception to this rule is that the Board may not exclude evidence “solely because it is hearsay.” Utah Code § 63G-4-206(1)(c). Even this exception, however, implies that hearsay evidence that also runs afoul of another rule of evidence (relevance under rule 402, for example) should not be admitted.

**I. AS A THRESHOLD MATTER, THE BOARD SHOULD NOT PERMIT EXPERT WITNESS TESTIMONY UNTIL ITS PROPONENT DEMONSTRATES THAT IT HAS A RELIABLE BASIS**

While opinion testimony from lay witnesses is usually excluded, opinion testimony from a qualified expert is permitted if that expert's "scientific, technical or specialized knowledge will help [the Board] to understand the evidence or to determine a fact in issue." Utah R. Evid.

702(a). The expert's opinions must be reliable, meaning that the underlying principles and methods must be (1) reliable; (2) supported by facts or data; and (3) reliably applied to the facts in issue. *Id.* at 702(b). In evaluating proposed expert testimony, the Board is obliged to serve as a "gatekeeper" that prevents unreliable expert opinions from being accepted into evidence.

Eskelson v. Davis Hosp. & Med. Ctr., 2010 UT 59, ¶ 12 (citing the advisory committee notes to Rule 702). This threshold inquiry into reliability must focus on "the work at hand," meaning that the witness' expertise, along with the supporting principles and methods he employs, must be relevant to the particular proposition or opinion they are offered to support. Utah R. Evid. 702 advisory committee's note (citing Daubert v. Merrell Dow Pharma., Inc., 509 U.S. 579.)

Supporting data and information must be of a type that is ordinarily relied upon and generally accepted by the relevant expert community making these types of judgments. Utah R. Evid.

702(c). An expert opinion must be based on more than speculation. Stevenson v. Goodson, 924 P.2d 339 (Utah 1996).

**II. THE BOARD SHOULD EXCLUDE IRRELEVANT TESTIMONY WHETHER IT IS OFFERED BY EXPERT OR LAY WITNESSES**

"Irrelevant evidence is not admissible," Utah R. Evid. 402, and both this Board's Rules of Practice and the Utah Administrative Procedures Act authorize the Board to exclude irrelevant, immaterial, or repetitious evidence. Utah Admin. Code R641-108-201; Utah Code § 63G-4-



206(1)(b)(i). “Relevant evidence is defined as evidence having any tendency to make the existence of any fact that is of consequence to the determination of the action more probable or less probable than it would be without the evidence.” Chapman v. Uintah County, 2003 UT App 383, ¶ 27 (citing Utah R. Evid. 401). When proposed expert testimony bears on a claim or defense that is not properly at issue, it is not helpful to the trier of fact and should be precluded as irrelevant. State v. Manwaring, 2011 UT App ¶ 39 (citing State v. Holm, 2006 UT 31, ¶ 90).

Red Leaf is aware that it has been the Board’s preference in evidentiary matters to permit a party to present evidence with the understanding that the Board, in its final decision, will assign to the disputed evidence only the weight it believes is appropriate. In this instance, however, there are important reasons to employ a more stringent standard at the outset. First, as described above, the Board has a gatekeeping responsibility when it comes to expert testimony. It is the responsibility of the party offering expert testimony to demonstrate, as a threshold matter, that the opinions to be offered have an appropriate foundation that is reliable, are based on sufficient facts, and are reliably applied to the facts. Admitting expert testimony that has not been shown to have a proper foundation is inconsistent with this gatekeeping function.

Second, pursuant to the Board’s Order in this matter, the parties have prepared expert witness reports (in lieu of taking depositions) under Rule 26(a)(4)(B) of the Utah Rules of Civil Procedure. Utah Board of Oil, Gas & Mining, Order Concerning Pre-Hearing Procedures at ¶ 3 (Apr. 6, 2012). This rule requires an expert to fully disclose his opinions and their underpinnings, and prohibits an expert from testifying at hearing “concerning any matter not fairly disclosed in the report.” Utah R. Civ. P. 26(a)(4)(B). The Board’s customary practice of admitting disputed evidence and addressing its reliability or relevance in the weight it bears in

the final decision is inconsistent with this rule, made applicable to all parties offering experts through the April 6 Board Order. It is only by performing the threshold task of determining whether proffered expert testimony is reliable that the Board can assure the parties that opinions offered at hearing will not stray into areas unsupported by the basis disclosed in the expert reports.

### **ARGUMENT**

#### **III. MR. KUIPERS SHOULD NOT BE PERMITTED TO TESTIFY REGARDING PURPORTED TECHNICAL OR ECONOMIC FAILURE OF THE ECOSHALE IN-CAPSULE TECHNOLOGY**

The proposed expert testimony regarding purported economic or technical failure of the In-capsule technology is inadmissible. First, Mr. Kuipers is not qualified to reach such an opinion. Second, his opinion, as disclosed in the expert report, is unsupported by reliable and relevant facts, data, or methods. The following sections explain these arguments.

##### **A. Mr. Kuipers' training and experience as a mineral processing engineer is unrelated to the proposed In-Capsule Technology.**

Mr. Kuipers' Expert Report provides no indication of practical experience with any type of mineral processing operation similar to the technology to be employed at the Southwest #1 Mine. His industry experience, as disclosed in his resume, encompasses more traditional mill operations such as grinding, leaching and bioleaching, solvent extraction, and water treatment. All of this experience is in base and precious metals extraction and refining, with no industry experience in energy minerals, let alone oil shale or similar substances. Since leaving the industry in 1996, Kuipers' efforts have been associated with advocacy rather than production, and appear to have focused on mine closure and reclamation. Kuipers' resume indicates no experience or training in engineering geology, mining engineering, or civil engineering to enable

him to opine reliably on design or the structural integrity of the In-capsule system, or any of its components, including the bentonite-amended soil ("BAS") liner. Similarly, while he reports some post-industry experience with reclamation cost estimating, there is no corresponding economic training or expertise disclosed in his report that would make his opinions regarding the economic viability of the In-capsule system reliable enough to be helpful to the Board. Accordingly, his opinions on this subject should not be admitted.

**B. Mr. Kuipers' opinion regarding Capsule Stability is inadmissible because it is supported entirely by speculation and irrelevant data**

At pages 3 and 4 of his report, Kuipers concludes that the stability of backing walls, and integrity of the BAS liner "will be adversely affected" by heat and pressure during oil shale processing. The opinion is unreliable. In the first place, Kuipers admits that he has not evaluated test data or information from any comparable design. Nevertheless, he draws his conclusion based on admittedly dissimilar liner systems consisting solely of geomembranes, or of composites of soil and geomembranes. He provides no basis for his conclusion that the BAS liner will be susceptible to the same processes causing degradation of membrane-based liners. Red Leaf asserts that the differences between membrane-based liners and the BAS system are so striking as to prevent any comparability. Kuipers identifies no basis at all for his opinion regarding backing wall stability.

**IV. MR. KUIPERS' OPINIONS REGARDING THE MINE'S POTENTIAL FOR ECONOMIC FAILURE ARE SPECULATIVE AND UNRELIABLE AND MUST BE EXCLUDED**

Mr. Kuipers' opinions regarding purported "high likelihood of project failure and proponent bankruptcy" are unreliable and should not be admitted. The opinions fail because

they are not supported by sufficient facts or data. See Utah R. Evid. 702(b)(1). The expert report does not indicate that Kuipers has made any analysis of Red Leaf's financial situation, nor does it disclose analysis of even one scrap of company- or process-specific financial information in reaching the sweeping conclusion that "it is highly likely that the project will prove to be uneconomic and could cease operations within 2-3 years of start-up. . . ." Report at 7. The opinion is entirely speculative and therefore unreliable and inadmissible.

Even if his opinion on this subject were not entirely speculative, it is inadmissible because it is irrelevant to any matter that the Board must decide. No provision of the Utah Mined Land Reclamation Act or the rules applicable to large-mine notices of operation for non-coal minerals requires the operator to demonstrate financial viability of the proposed operations. The Division, similarly, is not authorized to consider such matters in accepting and approving the notice. See Utah Code §§ 40-8-13, 14; Utah Admin. Code R647-4-101 through 115. Since no issue of financial viability is properly before the Board, any expert opinion on this subject is unhelpful and should be excluded.

**V. THE EXPERT'S OPINIONS REGARDING THE ADEQUACY OF THE RECLAMATION BOND ARE IRRELEVANT TO ANY ISSUE PROPERLY BEFORE THE BOARD AND SHOULD BE OMITTED.**

Mr. Kuipers' opinions regarding the amount by which the reclamation bond might be increased are irrelevant to any issue raised by Petitioners and should be excluded from evidence. As set forth above, expert opinions related to claims or defenses not before the Board are unhelpful and consequently inadmissible under Rule 702. In this matter, Living Rivers' Request for Agency Action provides no indication that it contended that the bond amount was improperly calculated. See Request at 26-27 (omitting any discussion of bonding from its requested relief).



Indeed, the entire thrust of the Request for Agency Action on this point was that the notice should be rejected outright because reclamation was impossible. See, e.g., Request at 26. Because the Board is not called upon to evaluate Red Leaf's potential for invoking the protections of federal bankruptcy law in reaching a decision, such speculation has no place in the hearing before the Board. It cannot be permitted.

**VI. EXPERT'S OPINIONS BASED ON THE 2012 DRAFT PEIS FOR OIL SHALE AND TAR SANDS ARE UNRELIABLE AND SHOULD BE EXCLUDED.**

The Board should not admit any opinions having their basis in the 2012 Oil Shale and Tar Sands Draft Programmatic Environmental Impact Statement, prepared by the Bureau of Land Management and offered for public review and comment on January 27, 2012 (the "Draft PEIS"). The Draft PEIS does not provide a reliable and relevant basis for opinions regarding Red Leaf, the Southwest #1 Mine, or the EcoShale In-Capsule Technology. First and foremost, the document is a draft, not a final version, and could be significantly different when a final version is published. Second, it would be unheard of for mineral process engineers or mineral economists to turn to an environmental impact statement (let alone a "programmatic" EIS)<sup>2</sup> as a source of information for making decisions regarding the technical or economic viability on a specific project. Engineering handbooks, cost estimating databases and project-specific drawings would be appropriate source materials for this type of specialized evaluation. Third, the Draft PEIS does not evaluate the EcoShale process, but apparently restricts its conclusions to in-situ retorting processes, or to traditional surface or underground mining operations with distinct processing and spent-shale disposal operations. Report at 6. Finally, the Draft PEIS was

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<sup>2</sup> A programmatic EIS evaluates the common environmental impacts of a broad government program or initiative, but without the level of detail that would be required for site-specific decisions. See *Mandelker*, NEPA L. & Litig. § 9.2 (2011).

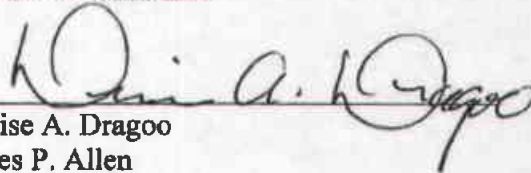
prepared by the Bureau of Land Management, ostensibly in support of its land-use planning process. In short, the basis for Kuipers' opinions regarding both technological and economic viability is a draft document, not usually relied upon by process engineers, that was prepared by a different agency, for a different purpose, regarding different processes. Testimony based on this document is unhelpful and must be excluded.

### CONCLUSION

For the foregoing reasons, Red Leaf respectfully moves that the Board enter an Order prohibiting Petitioner Living Rivers from offering its proposed expert testimony on the four matters set forth above. In each case, the opinions will not be helpful to the trier of fact, and the Board must exercise its gatekeeping responsibilities to prevent them from becoming a part of the record.

RESPECTFULLY SUBMITTED this 11<sup>th</sup> day of June, 2012.

SNELL & WILMER

A handwritten signature in dark ink, appearing to read "Denise A. Dragoo", is written over a horizontal line.

Denise A. Dragoo

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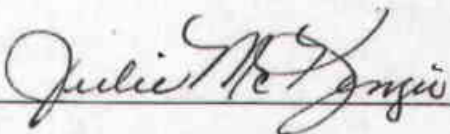
**CERTIFICATE OF SERVICE**

I hereby certify that on the 11<sup>th</sup> day of June, 2012, a true and correct copy of the foregoing RED LEAF RESOURCES, INC.'S MEMORANDUM IN SUPPORT OF MOTION IN LIMINE was served by e-mail and was mailed via U.S. mail, postage prepaid, on the 11<sup>th</sup> day of June, 2012, to the following:

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